The Maryland Fruit Grower

Published Monthly
By
THE MARYLAND STATE HORTICULTURAL SOCIETY
College Park, Maryland

PROGRAM NUMBER

Volume 1 December, 1931 Number 11

Write for Bean's 1932 Catalog describing the new complete line.

Power Sprayers
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Power Dusters
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JOHN BEAN MFG. CO.

Division Food Machinery Corporation

Lansing, Michigan

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PROGRAM

MARYLAND STATE HORTICULTURAL SOCIETY

January 5th, 1932

New Horticultural Building, College Park

10:00 A. M.

Call to Order ..... President, G. S. L. Carpenter, Hancock, Maryland
Report of Treasurer ..... G. Rust Canby, Silver Spring, Maryland
Report of Assistant Secretary ..... A. F. Vierheller, College Park, Maryland
President's Address ..... G. S. L. Carpenter, Hancock, Maryland

Orchard Economics
10:30 A. M.

How Can We as Growers Meet the Present Conditions of Our Industry?—Robert A. Simpson, Vincennes, Indiana. (One of the Most Outstanding Fruit Growers in the Middle West. Past President, Indiana Horticultural Society.)

11:15 A. M.

With the Low Commodity Prices Prevailing, What Orchard Management Policy Should We Follow?—Dr. E. C. Auchter, Principal Horticulturist in Charge of Division of Horticultural Crops and Diseases, U. S. Department of Agriculture, Washington, D. C.

Peach Culture
Insects — Diseases
1:30 P. M.

Improving the Size and Quality of Our Peaches—Dr. J. H. Beaumont, Head, Department of Horticulture, North Carolina College of Agriculture, Raleigh, North Carolina.

2:15 P. M.

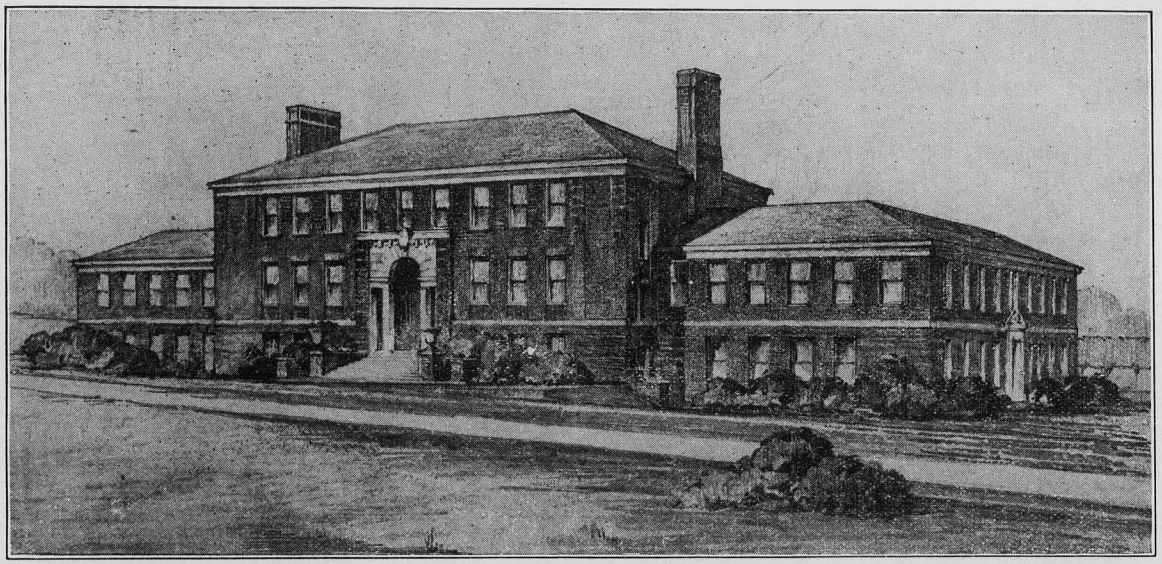
Phony Peach—A New and Dangerous Peach Disease—Dr. Lee M. Hutchins, Pathologist, U. S. Peach Disease Laboratory, Fort Valley, Georgia.

3:00 P. M.

Some of the Causes for, and the Behavior of Water Core and Other Types of Breakdown in the Apple—Dr. J. R. Magness, Senior Pomologist, U. S. Department of Agriculture, Washington, D. C.

3:45 P. M.

Codling Moth and San Jose Scale—Two Orchard Pests Demanding Close Attention—Dr. E. N. Cory, State Entomologist, College Park, Maryland.



NEW HORTICULTURAL BUILDING—UNIVERSITY OF MARYLAND, COLLEGE PARK, MD.

The Horticultural Society will meet here on January 5th, and at the Lord Baltimore Hotel, Baltimore, on January 6th, 1932.

6:30 P. M.

Get Together Dinner

Dining Hall—University of Maryland

Dedication of Horticultural Building—Senator Earle W. Withgott, Vice-President of the Maryland State Horticultural Society, Presiding, Easton, Maryland.

Address—Hon. Albert C. Ritchie, Governor of Maryland.

Address—Hon. Samuel M. Shoemaker, Chairman Board of Regents, University of Maryland.

The Relation of the Experiment Station to Horticulture—Dr. H. J. Patterson, Director, Experiment Station, University of Maryland, College Park, Maryland.

The Interest of Maryland Growers in the new Horticultural Building—
Fruits—W. Lee Allen, Salisbury, Maryland.
Canning Crops—Senator N. H. Fooks, Preston, Maryland.
Floral Crops—Wm. F. Ekas, Baltimore, Maryland.
Nursery and Ornamental Horticulture—G. Hale Harrison, Berlin, Maryland.

The Value of Research to the Fruit Grower—Dr. A. F. Woods, Director, Scientific Research, U. S. Department of Agriculture, Washington, D. C.

The Development and Importance of Maryland Horticulture—Dr. T. B. Symons, Director of Extension, University of Maryland, College Park, Maryland.

The Importance of Thorough Training in the Development of a Successful Horticulture Industry—Dr. Raymond A. Pearson, President, University of Maryland, College Park, Maryland.

* * *

January 6th, 1932

Lord Baltimore Hotel, Baltimore, Maryland

9:30 A. M.

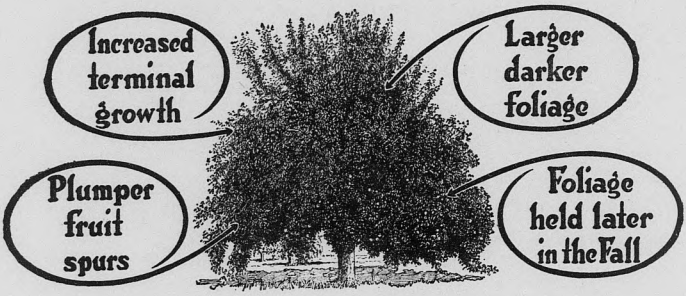
General Orchard Topics

The Effect of Nitrogen, Potassium and Phosphorus on the Keeping and Shipping Quality of Fruit—Dr. A. Lee Schrader, Pomologist, University of Maryland, College Park, Maryland.

The Effect of Different Methods of Soil Management on Tree Growth, and Fruit Yields—Dr. F. P. Cullinan, Senior Pomologist, U. S. Department of Agriculture, Washington, D. C.

Factors Influencing the Setting of Fruit—Dr. F. S. Howlett, Pomologist, Ohio Experiment Station, Wooster, Ohio.

The Importance of Soil Moisture in Fruit Growing—Dr. John R. Magness, Pomologist, U. S. Department of Agriculture, Washington, D. C.



It's not only the SAFE *dormant spray -it's* INVIGORATING, *too!*

FOR the last quarter century Scalecide has been the outstanding **quality** dormant spray. It has always been the one safe oil spray—pleasant to use, and non-injurious to man, beast or tree. Moreover, its continued use is invigorating, as shown by larger terminal growth, plumper fruit spurs, and darker longer-holding foliage. Scalecide is unexcelled for scale, aphis, red mite, pear psylla, pear thrips, bud moth, case bearer—any pest that can be controlled with **any** dormant spray or any **combination** of dormant sprays

Scalecide is also used at 1 to 100 in combination with Sulfocide, 1 to 200, as a pre-pink and pink spray. And, important in these times, the total cost of this combination is less than that of nicotine alone. This Sulfocide-Scalecide combination has not only won fame as the only spray necessary for citrus, but it is also rapidly winning recognition as an early summer spray for apples, peaches, pears, etc.

Net prices—lowest since 1917—$25 per 50-gal. drum, delivered your R. R. station. Drums extra, returnable. Ask your dealer or write B. G. Pratt Co., Dept. F, 50 Church Street, New York, for prices on smaller quantities.

SCALECIDE

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RECENT CHANGES IN PRUNING

*A. F. VIERHELLER, Extension Horticulturist
College Park, Maryland

Greater growth, larger leaves, greater fruit bud formation, greater set of fruit, and greater yields have resulted in cases where fruit trees have given a response to the use of nitrogen fertilizers. With these changes in growth and fruiting, the grower is confronted with various problems which mean modification of the practices that have been used in the orchard. Some of the practices to be considered are pruning, training, thinning, culture, spraying, planting distance, and picking. However, we shall consider only pruning. How much will nitrogen fertilization influence our pruning practice?

First, let us consider the pruning of the old tree. With the greater growth, and heavier yields following nitrogen fertilization, more pruning and better pruning is necessary on old bearing trees. In pruning old trees, we should aim to remove weak branches or branches that are crowded, broken, diseased, or growing in such a way that better branches are shaded. We should try to display as much of the bearing surface of the tree as possible, to the sunlight. This does not mean heavy slashing of large limbs, but it requires a thinning out of smaller or medium-sized branches throughout the tree, so that some sunlight can filter through the tree.

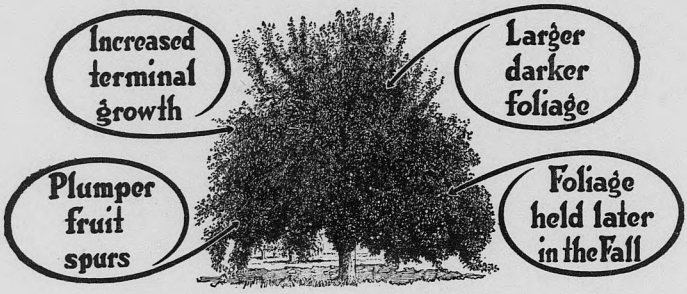
Two types of cuts are used in this pruning. One is a "thinning" cut which removes the entire branch whether it be small or large, back to the main branch or trunk. The other type of cut is the "heading back" cut which removes the ends of branches back to a good growing side branch.

The heading back invigorates the growth of spurs and terminals near the cut and should be used only on branches needing such invigoration, usually on non-vigorous trees. Heading back on vigorous trees only tends to cause over-stimulation of buds on branches so treated, so that these buds push out into side growth and the result is a dense tree.

Thinning out of such dense growth, by smaller cuts, invigorates the spurs over the whole tree, without producing over-stimulation, unless, of course, the thinning is carried to extremes. Thinning out should be done to remove weak and crowding branches that are found too often in the lower part of trees after several years of fruiting.

However, on young trees it has been found that light pruning has been more desirable in the early years which results in the production of early yields and larger trees. Heavy pruning of young

*Adapted from a paper "The Effect of Nitrogen Fertilization on Other Orchard Practices" by A. L. Schrader, in Transactions of the Peninsula Horticultural Society, 1929.



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This year Hardie offers more capacity and pressure per dollar of price than ever before. Now, when you need them most, Hardie brings these constructive factors to the aid of all growers everywhere.

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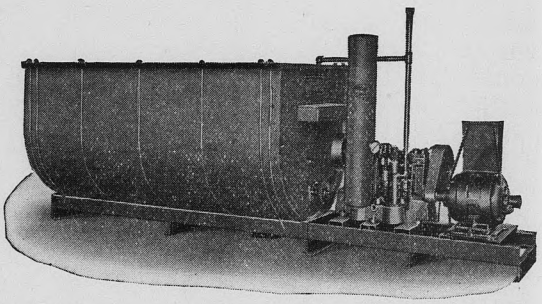

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The Hardie Portable Sprayer line includes outfits from 6 gallons per minute at 350 lbs. pressure to 35 gallons per minute at 650 lbs.

HARDIE DEPENDABLE SPRAYERS

trees, especially when fertilized with nitrogen, will delay the age of bearing. Auchter, by experiments, has shown that summer pruning is not desirable in Maryland. Light dormant pruning for the first six years of the tree's life gave better growth, larger diameter of trunk and branches, and the trees showed more height and spread, more bearing surface, and more fruit buds, than those pruned heavily.

As the bearing tree fills with growth, followed the use of nitrogen, we must pay a great deal of attention to thinning of the branches to admit light which is so essential to the color of fruit and also to the growth and fruit bud formation on the lower spurs.

Another modification of our pruning practice is in the production of a stronger framework that enables the tree to carry the larger crop which results from the use of nitrogen fertilizers. Thus, the modified leader system is quite necessary for apples, spacing the scaffold limbs on a main leader that is allowed to reach a height of 7 to 8 feet before heading to a side branch. Likewise a new system of training peaches has been developed to build strong scaffold limbs on a peach tree. This method of training peaches has been described quite fully in Maryland Bulletin 299. The method, in brief, entails the heading of a peach tree to 36 to 40 inches at planting time, and later the selection of four, well-spaced shoots in the spring, following planting, just as the shoots have developed to about two inches in length. This system has also been tried with one-year-old apple trees with good results.

A very vital need for better pruning following nitrogen fertilization is found in our control of insects and diseases. Unless the trees are given careful thinning out, it will be difficult to do a good spraying job, especially with the larger leaf area and the greater number of fruits to be covered.

Thus, with the necessity of stronger framework to bear larger crops, and the need to open older trees to get better colored fruit and better sprayed fruit, pruning assumes a more important place when we are trying to grow a large crop of fruit to higher quality.

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A. F. Vierheller, Extension Horiculturist

THIS MAKES IT EASIER

According to the "Pennsylvania Horticulture Association News," Mr. J. R. Stear, Koppers Experiment Station, Ligonier, Pa., has figured out this arsenical tolerance business so that we know what it's all about. The tolerance is usually expressed as so many grains per pound of fruit. There are 15.44 grains in a gram, 28.35 grams in an ounce, and 16 ounces in a pound, or 6999 grains in a pound. The U. S. tolerance has been .012 grains per pound of fruit, or 1 pound of arsenical to 11,665 bushels of fruit. The world tolerance of .01 grains per pound allows 1 pound of arsenical to 14,000 bushels of fruit. These figures assumed the weight of apples as 50 pounds per bushel.

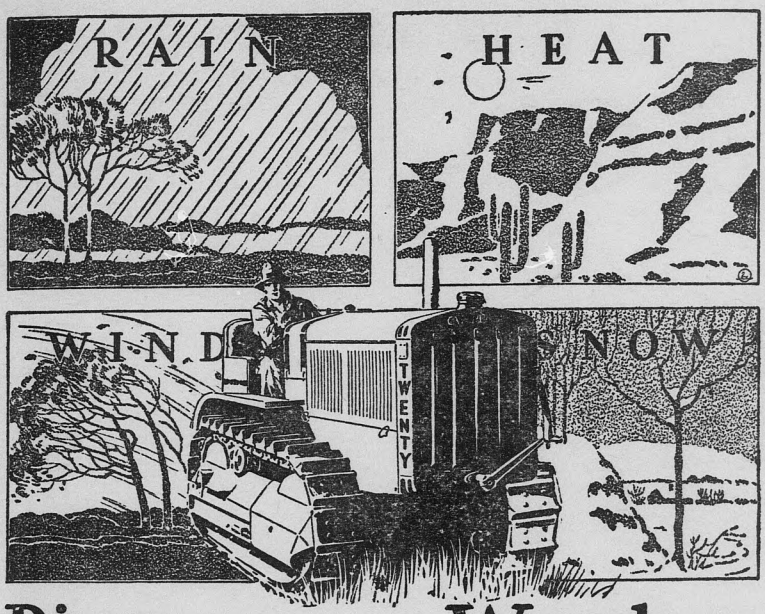
BAGS AND BASKETS

In these days of silk stockings and dresses, the rough edged basket is not welcome in the automobile. Roadside market patrons prefer their fruit displayed in baskets, but want to carry it home in bags. From September, 1931, "Hoosier Horticulture," of the Indiana Horticultural Society, we find that one New Jersey grower used 14,000 baskets and 4,000 paper bags in 1924, and 4,000 baskets and 28,000 paper bags in 1930. Customers preferred uniform, attractive, highly colored fruits and vegetables, and seemed to think that well-graded products cooked more uniformly.

MAKING IT HOT FOR THEM

I. M. Miller in July 1931, "Better Fruit" magazine describes a steam treatment for codling moth. In experimental orchard trials at Yakima, Washington; and Grand Junction, Colorado, instead of scraping the trees, a portable boiler was pulled through several blocks of trees and live steam at pressure as high as 125 pounds was directed for a few seconds against the trunks, crotches and larger limbs. Results seemed to show serious effects upon over-wintering moth larvae, there being about one-fifth as many moths emerging the next spring in the steamed plots as in the unsteamed plots. The use of codling moth sprays in the Northwest is a big factor in production costs.

This doesn't mean that Maryland growers should buy steam boilers. Don't experiment. It's dangerous. Stick to approved practices. Refer insect problems to Dr. E. N. Cory, College Park, before trying any uncertain treatments for insects.



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"CATERPILLAR" Tractors

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KOLOFORM is now recognized everywhere fruit is grown as the IDEAL SUMMER SPRAY for the following reasons:

KOLOFORM is a noncaustic material that controls fungus diseases WITHOUT INJURY TO FRUIT OR FOLIAGE. NO RUSSETING —does not cause fruit drop. IT IS SAFE.

KOLOFORM contains fused Bentonite-Sulphur, which is an infinitely fine COLLOIDAL sulphur. No other form of sulphur is so fine or effective.

KOLOFORM gives protection through rain or wind—it sticks to fruit and foliage.

KOLOFORM is liked especially for the BETTER FINISH it gives your fruit.

KOLOFORM is non-abrasive. It will not cut your pumps or injure your equipment. ALWAYS UNIFORM.

KOLOFORM is packed in convenient dry form for ready use in the spray tank. It mixes readily with water—stays in suspension—pleasant to use.

KOLOFORM is a CLEAN spray.

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